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EXAMINER

ABRAMS, NEIL

ART UNIT

PAPER NUMBER

2839

DATE MAILED: 09/25/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/918877

Applicant(s)

Examiner

Abrams

Group Art Unit

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— The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address —

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- ☒ Responsive to communication(s) filed on 7-28-03 (2m 7-23)
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1-20 is/are pending in the application.
- Of the above claim(s) 15-20 is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☒ Claim(s) 1-14 is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement

Application Papers

- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).
- ☐ All ☐ Some* ☐ None of the:
- ☐ Certified copies of the priority documents have been received.
- ☐ Certified copies of the priority documents have been received in Application No. _____.
- ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a))

*Certified copies not received: _____

Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____ ☐ Interview Summary, PTO-413
- ☒ Notice of Reference(s) Cited, PTO-892 ☐ Notice of Informal Patent Application, PTO-152
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948 ☐ Other _____

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Applicant's election with traverse of Group I, claims 1-14 in Paper No. 6 is acknowledged. The traversal is on the ground(s) that the product and process are not materially different. This is not found persuasive because the two groups are to materially different inventions since the Group I product is to a terminal, usable in many different types of devices such as switch modules that are highly diverse from the Group II battery.

The requirement is still deemed proper and is therefore made FINAL.

Abstract objected to line 9, after "adhesive of the"--envelope-like-- and after "effectively", -- by filling the apertures -- should be added, line 10, after "unit" -- The terminals pass through overlapped edges of the packaging material and include tangs (26) for electrical connection to ~~flaps~~ (32) formed in the flexible circuit. -- should be added. New abstract on separate sheet is required.

Drawings objected to, fig 1, "26" for tangs should be added, fig 3 "102" for the two lower batteries should be added, and for 20 INT, "78 (1 to n)" if proper should be added, fig 6, "24" or "22" should be added, ~~fig~~ 8, "99b" should be added and in fig 8, portions of envelope 80 on each side and adhesive 83 on each side and filling the apertures should be added in an amended or new fig.

Applicant is required to submit a proposed drawing correction in reply to this Office action. However, formal correction of the noted defect may be deferred until after the examiner has considered the proposed drawing correction. Failure to timely submit the proposed drawing correction will result in the abandonment of the application.

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For claims 1, 4, 9, limitations noting functions of apertures and of tang should be added to more clearly define the invention.

Claims 1-14 ^{are rejected as indefinite} ~~are~~ would be allowable under 35 U.S.C. 112, second paragraph, set forth in this Office action.

Claim 1, line 4 "in electrical contact with" is unclear, ^{to correct this} after "with" -- a conductive part, or similar terms should be added. Claim 9 is similarly unclear. Same wording in non-elected claim 15 is noted. Claim 14 dependance is incorrect.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5, 7, 9-11 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lockhard in view of Miyoshi.

The Lockhard terminal 54, fig 2, includes a first region 60, a second region with apertures 58 and a third region 34. The first region 60 is secured to wires 66 but is not adhered. Miyoshi figs 1-6 discloses wire attachment by welding. Obvious to use welding (adherence) in Lockhard. This would enable good conductivity at the connection.

For claim 2, the Lockhard contact is encapsulated by material 72, figs 4, 5, 6. Claim 3 relates to obvious choice of material. For claim 4, broad reference to tang does not overcome the rejection.

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For claim 5, Lockhard holes 58 also readable as locating holes. Claim 7, does not define over fig 2 arrangement. Further obvious to form greater number of holes 58 in a row for greater securement to the block 36. Claims 9, 10, 11, 13 also rejected in the references applied as discussed above.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States. Claims 1, 5 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Eytcheson

254.

Note fig 4, terminal with first region adhered to wafer 12, second region with apertures at 17a, 17f, and third region at 14f. The apertures are also readable as locating holes.

Claims 1-5, 7, 9-11 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eytcheson 765 in view of Eytcheson 254, and Furnival.

The 765 patent, figs 10, 11 discloses a terminal 214 with a first region 214f, e, d for being soldered (adhered) to electrodes 35, and a third region 228 for connection to conductors. The terminal lacks a second region with apertures. The 254 patent, fig. 4, discloses a terminal with apertures at 17a, 17b. Obvious to use such features in 765 device for aid in bending and for stress relief. As alternative, also obvious to read 228a, b as second region row of apertures, with a third region formed for clip connection as in 254 patent fig 4 at 14a.

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For claims 2, 3, ^{the} 765, patent adequate since standard to fill housing 144 with epoxy leaving only terminal ends exposed. Further obvious to add molded part in view of Furnival at 50. Either such change would protect the components in housing 144. For claim 4, tang shown at lead line 228 (fig 10). For claim 5, slots in base 214f form locating holes. Holes 228a, b also readable as locating holes.

Claims 7, 9, 10, 11, 13 also met by references applied as discussed above.


Claims 1-3, 5, 7, 9, 10, 11, 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Furnival in view of Hammerly and Eytcheson 254.

Furnival contact 56 includes first regions 142 for solder adherence to plate 51, third region for connection to wires and a fourth region for encapsulation by body 50.

The contact lacks a second region with apertures. Hammerly discloses use of apertures as molding aids, Eytcheson uses holes 17b for stress relief. Obvious to add either type to Furnival contacts for better securement to the molded part 50 and for stress relief. Claims 2, 3, 7, 9, 10, 13 also met by Furnival so modified. For claims 5, 11, Furnival contacts have single hole. Obvious to add second hole in view of Eytcheson at 228a, b. This would allow added wire connections.

Claims 6, 8, 12 define over the prior art.

Any inquiry concerning this communication should be directed to N. Abrams at telephone number (703) 308-1729.


NEIL ABRAMS
EXAMINER
ART UNIT 322